

### Gutta Percha and Natural Rubber Latex (1/03)

Cross-reactivity between gutta-percha and natural rubber latex. Hamann C, Rodgers PA, Alenius H, Halsey JF, Sullivan K. J Am Dent Assoc 2002;133:1357-1367.

As awareness of allergy to natural rubber latex (NRL) has increased, concerns have been raised about possible cross-reactivity of gutta-percha and NRL antigens. To date, no study has conclusively demonstrated that gutta-percha is a causative agent of adverse allergic reactions. The authors undertook an investigation of the immunological cross-reactivity between NRL and gutta-percha using both in vitro and in vivo methods to help dental professionals better understand the allergic potential of endodontic materials. The authors analyzed aqueous extracts of commercial gutta-percha points and raw gutta-percha samples for cross-reactivity to NRL by radioallergosorbent test (RAST) inhibition; immunoblot inhibition; direct enzyme-linked immunosorbent assay (ELISA); and ELISA inhibition using sera from NRL-allergic people as the source of anti-NRL immunoglobulin E (IgE) antibodies. To confirm the in vitro results, the authors conducted skin prick testing (SPT) on a patient with type I NRL allergy using aqueous extracts from raw gutta-percha and gutta-percha points. **The authors found no detectable cross-reactivity between NRL and commercial gutta-percha points. However their ELISA and SPT results demonstrated that some allergic cross-reactivity exists between raw gutta-percha and raw NRL.**

**GUTTA  
PERCHA  
POINTS**



**DIS Comment:** Clinically, gutta-percha alone is not likely to induce symptoms in patients with type I NRL allergy. However, since these patients often have a lengthy history of allergies, they may react to other materials used during dental procedures. When treating patients with suspected or documented type I NRL allergy, dentists should pay attention to potential reactions to dental chemicals and materials, including gloves, rubber dams, rubber anesthetic cartridge stoppers, methacrylates, anesthetics, and disinfectants. Dental healthcare personnel should be able to recognize and treat the complications of latex exposure. Consultation with the patient's primary care provider may be indicated for optimal patient management.